

# STEM and STEAM Classes

## What are STEM and STEAM?

STEM is a combination of science, technology, engineering and math. STEAM is a combination of science, technology, engineering, and math with elements of the arts added.

## Appropriate Placement of Teachers in These Courses

Ensuring that an appropriately prepared and endorsed teacher is assigned to teach in Michigan's classrooms is critical to student achievement. The State Board of Education (SBE) has [approved standards](#) for preparing teachers in each endorsement area.

Michigan does not offer a STEM or STEAM endorsement. Michigan also does not offer an engineering endorsement. However, the Michigan Department of Education (MDE) and the Michigan State Board of Education have approved educator preparation standards for separate science, technology and math endorsements. These endorsements are offered at various [educator preparation universities](#) throughout the state.

It is necessary for schools to evaluate a proposed STEM or STEAM course and refer to the [Proper Placement Considerations](#) document to ensure the class is taught by an appropriately prepared teacher or teachers. Following this guidance, a key consideration is the intended Michigan Merit Curriculum (MMC) credit being offered for the course. In addition, the subject area endorsement necessary to teach a STEM or STEAM course may only be determined after a review of the course content.

The following conclusions can be made for these courses:

- If the course is being offered for an elective credit, any teacher certified at the grade level, with the specialized training and/or knowledge, can be assigned to teach the course.
- If multiple content areas (e.g., science and math) are being taught, and credit is being given for math AND science, the course must be staffed with a teacher or COMBINATION of teachers who hold(s) both of these endorsements.
- If multiple content areas (e.g., science and math) are being taught, and credit is being given only for math OR science, the course must be staffed with a teacher holding that specific endorsement.

Additional information regarding appropriate placement of teachers can be found in the [Quick Reference: Courses That Can Be Taught](#) document.